

PATENT

INSTITUT FRANÇAIS DU PÉTROLE

PROCESS FOR GENERATING HEAT TO REDUCE THE EMISSION OF OXIDES
OF SULPHUR AND REDUCE ADSORBENT CONSUMPTION

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ABSTRACT

A heat generation process with reduced emissions of oxides of sulphur is described in which:

- a) a sulphur-containing fuel is burned in a combustion zone comprising a heat exchange zone in which at least a portion of the heat is extracted, and effluents or combustion fumes are recovered at a temperature in the range 800°C to 1200°C;
- b) the fumes resulting from said combustion, charged with oxides of sulphur, are caused to traverse a space for supplying and distributing the fumes to a desulphurisation apparatus functioning with an internal recycle of a solid oxides of sulphur adsorbent;
- c) the adsorbent is injected into said space;
- d) the fumes are caused to enter said apparatus;
- e) the fumes are caused to penetrate into a convection exchange zone and at least a portion of the heat is extracted from said fumes;
- f) the mixture resulting from steps b) and c) is separated in a gas/solid separation zone and a portion of the gaseous effluent that has been freed of the major portion of the oxides of sulphur and at least partially cooled is evacuated, and said adsorbent particles comprising said sulphur-containing compounds are evacuated.

Figure 2 to be published.